

In re U.S. Patent Application of Jens PETERSEN et al.
Serial No.: 09/938,670 Filing Date: August 27, 2001
Title: POLYACRYLAMIDE HYDROGEL AND ITS USE AS AN ENDOPROSTHESIS

AMENDMENT

The listing of claims will replace all prior versions and listings of claims in the Application. Please amend the claims as follows:

Listing of Claims:

1. (previously presented) A bio-stable hydrogel for use as an endoprosthesis, the hydrogel comprising:

a polyacrylamide which includes a polymer of acrylamide cross-linked with methylene bis-acrylamide, wherein the acrylamide and methylene bis-acrylamide are combined in a molar ratio of 150:1 to 1000:1 and wherein the hydrogel comprises about 0.5 to 3.5% of the polyacrylamide by weight, based on the total weight of the hydrogel, and

water or an aqueous solution,

wherein the hydrogel comprises less than 50 ppm of acrylamide and methylene bis-acrylamide monomers; and wherein the hydrogel has an elasticity module from about 10 to 700 Pa and a complex viscosity from about 2 to 90 Pas.

2. (previously presented) A hydrogel according to claim 1 wherein the hydrogel comprises at least 95% by weight water or aqueous solution based on the total weight of the hydrogel.

3. (cancelled)

4. (cancelled)

5. (previously presented) A hydrogel according to claim 1, comprising at least 1% by weight of the polyacrylamide, based on the total weight of the hydrogel.

6. (cancelled)

7. (previously presented) A hydrogel according to claim 1, which has a complex viscosity from about 5 to 80 Pas.

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8. (previously presented) A hydrogel according to claim 1, which has an elasticity module of not less than 20 Pa.

9. (previously presented) A hydrogel according to claim 1, which has an elasticity module from about 35 to 480 Pa.

10. (previously presented) A hydrogel according to claim 1, which has a cross-linking density of about 0.2 to 0.5%.

11. (previously presented) A hydrogel according to claim 1, wherein the acrylamide and methylene bis-acrylamide are combined in the molar ratio of from 175:1 to 800:1.

12. (previously presented) A hydrogel according to claim 1, for use as an implantable endoprosthesis.

13-43. (cancelled)

44. (previously presented) A hydrogel according to claim 1, for use as an injectable endoprosthesis.

45. (previously presented) A hydrogel according to claim 1, wherein the complex viscosity is from 6 to 40 Pas.

46. (currently amended) A hydrogel according to claim 1[[2]], for use in an wherein the implantable endoprosthesis further comprises comprising a silicone-based envelope.

47. (previously presented) A hydrogel according to claim 1 further comprising cells for cellular engraftment.

48. (new) A hydrogel according to claim 1 which comprises 0.5 to 3.47% of the polyacrylamide by weight, based on the total weight of the hydrogel.

49. (new) A hydrogel according to claim 1 which comprises 0.5 to 3.4% of the polyacrylamide by weight, based on the total weight of the hydrogel.

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50. (new) A hydrogel according to claim 1 which comprises 0.5 to 3.3% of the polyacrylamide by weight, based on the total weight of the hydrogel.